

Looking at the results of the code, all four methods have relatively similar R^2 values, but with the label scaling being a negative correlation compared to the Min-Max scaling that had a positive correlation. What really stands out between the results is the mean squared error (MSE). For the standalone data with no adjustments and the Min-Maxed feature scaling models, the MSE is smaller than the model with label scaling only and the model with labels and features scaled. This would suggest using the initial data or the min-maxed data models would be better given that you want the smallest MSE with the largest R^2 value for your model.

Looking at the MSE values compared to the average hospital expense (\$4909), the MSE values are greater than the average by factors of 1 and 10 thousand. While it is common in the real world for there to be large errors between actual and predicted values, this difference between the MSE and average seems extreme, suggesting there may be outliers to look at in the data.

```
terminal  Help  <  >  Python For 481

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

Loaded training records: 5000
Loaded inference records: 100
Initial MSE: 6091266.66084584
Initial R2 score: 0.7470976500365101
Minmax MSE: 6091259.923643522
Minmax R2 score: 0.7470979297573619
Scaled MSE: 41722675.617281504
Scaled R2 score: -0.7322772582262334
Scaled and minmax MSE: 41722674.77173255
Scaled and minmax R2 score: -0.7322772231200179
Predictions exported to file: Problem2_predictions.csv
Prediction statistics exported to file: H2P2_prediction_statistics.csv
PS C:\Users\esme1\Python For 481> 
```